

# Skalpte Tanıda Yanıltıcı Olarak Hidradenitis Süppürativayı Düşündüren Multipl Rüptüre Epidermal Kistler: Olgu Sunumu

Multiple Ruptured Epidermal Cysts on the Scalp Mistaken as Hidradenitis Suppurativa: Case Report

Multiple Ruptured Epidermal Cysts On The Scalp / Skalpte Multipl Rüptüre Epidermal Kistler

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## Özet

Epidermal kistler en sık rastlanan yumuşak doku tümörlerinden biri olması, kolaylıkla teşhis edilip cerrahi eksizyonla tedavi edilebilmesine rağmen zaman zaman başka lezyonlarla da karışabilmektedirler. Burada, skalpte ağrılı, sinüs yolları ve fistül oluşumuyla karakterize ve pürülan akıntılı multipl kitleleri nedeniyle başvuran ve ilk görünüşte bu lezyonların yanlışlıkla hidradenitis süppürativaya bağlı olabileceği düşünülen bir olgu deneyimimiz sunulmaktadır. Mevcut multipl kitlelerin total eksizyonu gerçekleştirildikten sonra yapılan histopatolojik değerlendirme sonucu multipl epidermal kist olarak rapor edilmiştir. Burada klinikte çok sık rastlamadığımız ancak uyguladığımız başarılı cerrahi tedavi ve sonuçta hasta memnuniyeti ile sonuçlanan olgumuz sunulmaktadır.

#### Anahtar Kelimeler

Epidermal Kist, Hidradenitis Süppürativa, Deri Grefti, Doku Genişletilmesi.

### Abstract

Epidermal cyst is one of the most common benign soft tissue tumors, and it may be easily identified and treated by surgical excision. We experienced a patient who had multiple masses on the scalp and the masses had been misdiagnosed as hidradenitis suppurativa (HS) because of persistent pain, sinus tract and fistula formation and purulent discharge. Based on physical examination, early total excision was performed. On the histopathologic examination, it was diagnosed as multiple ruptured epidermal cysts. In the case presented here, we would like to introduce an initial misdiagnosis but ultimately accurate treatment with excellent cosmetic result and highly satisfaction of the patient.

## Keywords

Epidermal Cyst, Hidradenitis Suppurativa, Skin Graft, Tissue Expansion.

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# Introduction

Epidermal cyst is one of the most common subcutaneous, soft tissue tumors which occurs anywhere in the body including head and neck region. It can be easily diagnosed clinically by history and physical examination of the patient. Epidermal cysts are treated by surgical resection and histopathological examination. It can be confused with dermoid cysts, lipomas and hidradenitis suppurativa (HS) but each case may be easily differentiated by histopathological examination [1].

HS also known as acne inversa, is a chronic, recurrent, inflammatory disease, initially presenting as tender subcutaneous nodules. These lesions may spontaneously rupture or coalesce to form deep dermal, exquisitely painful abscesses and sinus tract formations, fistulization, and scarring [2, 3].

HS lesions occur most frequently in the intertriginous apocrine gland-bearing areas of the axillary, inguinal, perianal and perineal areas. Uncommon sites include the areola of the breast, the submammary fold, the periumbilical skin, the scalp, the zygomatic, malar, retroauricular, and eyelid areas of the face, the buttocks, the thighs, the pubic, the chest, and the popliteal fossa. The sites affected in HS correspond not only to the location of apocrine glands in the body but also to that of terminal hair follicles dependent on low androgen concentrations [3].

It is thought that a defect in the epithelial lining of the hair follicle is followed by secondary bacterial infection and local tissue inflammation. Therefore, wide local excision with removal of the entire portion of hair bearing skin is vital to complete correction in such a case.

In the present study, we report a case who had multicentric tumors in the scalp with persistent pain, sinus tract and fistula formation and purulent discharge which had been misdiagnosed as HS.

## Case

A 32-year-old male visited our clinic suffering from multicentric tumors on the scalp (Figure 1,2). He told that these masses had developed since childhood without known etiology, and subsequently grown slowly. No special features were detected in

the family history. Howewer, the patient had underwent wide local excision for bilateral, severe axillary hidradenitis for 12 years ago. His previous diagnosis from several outpatient departments for the scalp lesions was also HS. In addition he had received some medical treatment such as antibiotherapy, retinoids and even botulinum toxin for the present lesions.

The patient had been referred to our department from another facility. Physical examination revealed multicentric tumors in diverse sizes on the scalp. During palpation, purulent discharge came from soft and movable tumors which were located in the subcutaneous layer of the scalp. Bacterial cultures performed previously had shown only normal skin flora.

These physical examination results, in combination with a history of axillary hidradenitis and previous misdiagnosis of scalp lesions from several outpatient departments also led us to make misdiagnosis of the lesions as HS.

Based on physical examination, we planned and performed surgical resection for a definitive diagnosis and treatment (Figure 2a). The resulting defect was approximately 30 % of the scalp and was treated with meshed-skin graft (Figure 2b). The histopathological examination revealed multiple ruptured and epidermal cysts. The postoperative period was uneventful.

After six months, the patient was re-admitted to our clinic for reconstruction of the alopecia (Figure 3a). Under general anesthesia, two tissue expanders (350cc, Rectanguler, Eurosilicone, France) were placed in both temporoparietal regions (Figure 3b). The expanders were inserted in the subgaleal plane from incisions that were made at the junction of hair bearing and nonhair bearing scalp. Incisions were closed in two layers after checking the expander, connecting tube and port for leakage. Expansion was started after 2 weeks of surgery and required expansion was achieved in 6 weeks (Figure 3b). In second stage the skin of grafted scalp was excised, the expanders were removed and the expanded skin was advanced to resurface the defect (Figure 3c). The scalp was healed without any complications. At 12 months later, the patient was satisfied with the cosmetic result (Figure 3d).



Figure 1. Preoperative view. A 32-year-old man with multiple epidermal cysts in the scalp.



Figure 2a. Specimen. Complete excision of the lesions was per-



Figure 2b. After excison of the entire lesions, split-thickness skin graft was used for the scalp reconstruction.



**Figure 3a.** The appearance of the scalp reconstructed with split-thickness skin graft two months after surgery.



Figure 3b. After placement of bilateral tissue expander, saline was injected every three days and required expansion was achieved in 6 weeks.



Figure 3c. In second stage the skin graft was excised, expanders were removed and the expanded skin was advanced to resurface the defect.



Figure 3d. The Postoperative 12 months' view . The scalp was healed without any complications and the patient was satisfied with the cosmetic result.

# Discussion

The epidermal cysts are one of the most frequently observed subcutaneous benign tumors in the scalp. This cyst occurs by the migration of epidermal components to the dermis or subcutaneous tissue during trauma or developmental processes [1]. The diagnosis is primarily made by specific clinical features. The examinations such as ultrasonography, computed tomography, MRI may be performed to differentiate it from other tumors. The surgical resection is recommended for the treatment of the epidermal cyst. The epidermal lining must be completely resected to prevent recurrence [1].

HS is a chronic inflammatory disorder involving the apocrine sweat glands of the axilla, perineum, breast and scalp. HS first presents as nodules. These nodules either resolve temporarily or progress [2, 3]. Eventually, they become infected, leading to sinus tract formation, multiple subcutaneous abscesses, persistent pain, and scarring. Chronically, the affected apocrine glands of the scalp may become altered by inflammation and fibrosis like our case. HS can be differentiated from other diseases by the appearance of the lesions, postpubertal age of onset, characteristic locations, resistance to antibiotics, recovery of multiple species of bacteria on culture, absence of fever, and the lack of significant laboratory findings. An important feature distinguishing almost all of these other diseases from HS is the specific histopathology (often with special stains for organisms) in the non-HS diseases [3].

HS has been associated with many disorders. The other disorders of follicular occlusion (acne conglobata, dissecting cellulitis of the scalp, and pilonidal cyst) are well known associations with HS, and make up the so-called follicular occlusion tetrad [2-4]. Some patients may have two or more disorders within the tetrad. There may also be an association with acne vulgaris which can be severe in chronic, generalized HS. When consider the HS and associated diseases, these lesions also could be misdiagnosed as dissecting cellulitis of the scalp (DCS) in such a case [5].

Squamous cell carcinoma is a rare but dreaded complication of long-standing HS and DCS. Squamous cell carcinoma arising from the chronically fibrosed and scarred HS lesions occurs after a history of HS for 10 or more years [3, 6]. In fact, this is an extremely long period, but once malignant transformation develops, the lesion grows aggressively and may metastasize [2, 3, 5, 6]. Treatment of the extensive scalp lesions such as HS and DCS poses a unique challenge because of the recurrent nature of the diseases. Successful treatment of an aggressive, refractory case of DCS with complete scalp excision and split-thickness skin graft has also been reported [5].

As a conclusion, treatment strategy have to be selected properly according to the duration of the disease, early or longstanding; the phase of the inflammation, width of the involved scalp[4,5]. The treatment of HS and DCS has been very resistant to conservative measures and tends to recur with limited local excision techniques. The recurrence rate is lowest with wide excision. In addition, treatment of the multiple and extensive epidermal cysts of the scalp is also challenging in such a case. After excision, the defect may be closed by skin grafting, local flap reconstruction, or secondary intention [2-5]. In the case presented here, the nature and overall size of the lesions not allowed us to use limited excisions. Therefore we preferred complete excision and split-thickness skin graft. Although initially we made misdiagnosis, treatment modality was accurate and useful and cosmetic results and patient's satisfaction was excellent.

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